

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4



61 Forsyth Street
Atlanta, Georgia 30303-3104

SEP 30 2005

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MEMORANDUM

SUBJECT: Jacksonville Ash Superfund Site
National Remedy Review Board Recommendations

FROM: Franklin E. Hill, Acting Division Director
Superfund and Emergency Response

TO: Jo Ann Griffith, Chair
National Remedy Review Board

Purpose

Region 4 has completed review of the National Remedy Review Board recommendations for the Jacksonville Ash Superfund Site in Jacksonville Florida, and offers the following responses to the Board recommendations. As a result of the Board review, Region 4 revised the proposed plan accordingly before releasing it to the public and will make similar adjustments to the draft ROD before it is signed. A copy of the proposed plan is attached for your information.

1. Based on the information currently before the Board, it is not clear that the Florida statute and implementing regulations are an ARAR for the soil contamination at this site.

On June 20, 2003, the Florida legislature passed a "risk based corrective action" (RBCA) statute, Section 376.30701, Florida Statutes (F.S.) that is designed to address environmental cleanups conducted at all contaminated sites in Florida not subject to the petroleum, brownfields, and drycleaning solvent programs described in Sections 376.3071, 376.81 and 376.3078, F.S, respectively. The FDEP also has adopted rules implementing these statutory RBCA cleanup requirements in Chapters 62-780 and 62-777, Florida Administrative Code (F.A.C.). The State of Florida through the General Counsel of the FDEP interprets this statute and its implementing rules to require that all RBCA cleanups attain cleanup target levels that achieve an excess lifetime cancer risk of 1×10^{-6} for carcinogens, or a hazard index of 1 or less for non-carcinogens, unless one of the statutory exceptions to achieving these cleanup target levels exists. (See attached FDEP June 6, 2005 letter). Region 4 believes that these risk requirements as interpreted by the State of Florida constitute ARARs for groundwater, surface water, and soil contamination that must be met, or waived, for cleanups at CERCLA sites in Florida subject to RBCA.



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2. The Region initially defined the outer boundaries of the site based on the presence of lead (above 400 ppm) and incinerator ash. The Board believes that this approach is reasonable. However, during the presentation, the Region indicated that additional sampling would be performed on properties both within and beyond the current site boundaries to characterize arsenic and dioxin levels at the state's request citing the above-mentioned legislation. Much of this sampling would occur on properties which may not pose unacceptable lead-related risks. The Board is concerned that the presence of arsenic and dioxin at the low action level suggested by the state legislation could be due to other anthropogenic sources. The Board recommends that the Region clarify the technical lines of evidence that will be used to determine whether or not the contamination is related to past disposal practices and limit cleanup to those areas that present an unacceptable risk. The decision documents should describe how these lines of evidence were used to establish the site boundaries.

The main line of technical evidence used to distinguish site related contamination is the visual presence of ash or proximity to ash and the use of background soil concentrations. The presence of ash criteria is most easily applied to the dump sites such as Lonnie C. Miller Park. Incinerator sites such as Forest Street and 5th & Cleveland may not present a distinct ash boundary. In areas where residential parcels with no discernable ash are dispersed among parcels with visible ash and lead, it is EPA Region 4's opinion that sampling and remediation of arsenic is appropriate. Because of the State of Florida's low cleanup level for dioxin, the need to sample and remediate parcels for dioxin that do not have discernable ash is being evaluated and probably will not occur. The background concentrations of COCs are also used to determine the site boundaries. The final decision documents will clearly describe the lines of evidence used to establish site boundaries.

3. The Region further indicated that soil would be removed from those properties where arsenic and/or dioxin levels exceed 1×10^{-6} risk or background, even if the levels are within EPA's acceptable risk range. The Board is concerned about the use of the state legislation to trigger remedial action beyond that necessary to address risks determined to be acceptable by EPA. The Board recommends that the remedy be limited in scope to those actions appropriate under CERCLA.

In accordance with the NCP, Region 4 has determined that the basis for taking action on the residential properties is the aggregate risk posed by the site, which exceeds 1×10^{-4} and an HI greater than 1. The presence of unacceptable carcinogenic or non-carcinogenic risk at the site was determined by evaluating ten contaminated properties at each of the three sites making up the Jacksonville Ash Superfund Site. Region 4 considers Florida's 1×10^{-6} risk level to applicable to the site remediation and is implementing it based on the criteria mentioned in the response to Recommendation 2. This means that ARARs have been triggered for the Jacksonville Ash Superfund Site and must either be met or waived by EPA. Therefore, Region 4 believes the proposed actions are consistent with the NCP and are appropriate under CERCLA.

4. The package presented to the Board listed ash excavation as a remedial action objective (RAO). The decision documents should be clear that the City of Jacksonville will voluntarily excavate all properties containing 25% or more of ash, regardless of the level of contamination. The Board recommends that the decision documents be clear that the RAOs are driven by the risk level of contaminants and not the percentage of ash content.

The decision documents will clearly state that remediation of ash > 25% is a voluntary action by the City of Jacksonville and that exceedences of remedial goals for COCs is the criteria used by EPA to drive remediation.

5. The preferred alternative presented to the Board assumes that shallow excavation, to a maximum of two feet below ground surface, would be performed on all properties where soil is contaminated above the RAOs. For commercial properties within the Forest Street Incinerator area, the volume of soil estimated to require excavation to a two-foot depth is significant relative to the total volume of soil proposed for remediation. The Board recommends that the Region consider other remedial options (e.g., capping in place with institutional controls) to address the risk and achieve the RAOs for these commercial properties.

The decision documents will clearly state that removal of UP TO two feet of soil exceeding remedial goals for the COCs will be removed in residential areas. Where exceedences of remedial goals do not extend throughout the upper two feet, less than two feet of soil may be removed. The alternative of covering industrial properties that exceed industrial remedial goals with two feet of clean soil or capping with asphalt or concrete will be included in the decision documents.

6. The package presented to the Board was unclear about the depth of excavation necessary to protect human health at residential areas. Data indicates that many of these residential areas have only surficial contamination, yet the preferred alternative assumes a two-foot excavation will be required.

The Board recommends that the decision documents clarify that excavation less than two feet may be sufficient to provide a protective, ARAR-compliant remedy in some areas, and that further sampling and characterization during design should consider the opportunity to reduce the volume of excavated material and the associated cost of remediation.

The decision documents should also recognize that it may not always be feasible to excavate to a two-foot depth due to the presence of structures and trees.

The Feasibility Study removal estimates assumes two feet of excavation across the areas designated for remediation. Additional sampling is needed in some areas to determine exceedences of remedial goals in the first two feet. The additional sampling will occur during both the Phase III RI and during remedial design and remedial action. It will be made clear

in the decision documents that UP TO two feet of soil that exceeds remedial goals for the COCs will be removed in residential areas. Where there are exceedences of remedial goals less than two feet, the option of removing less than two feet of soil will be provided. The decision document will also state that less than two feet of soil removal will occur in areas immediately adjacent to the foundation of buildings and other structures and around the base of trees.

7. The preferred alternative relies on long-term institutional controls in residential areas to be protective. The Board believes that, in some cases, excavation deeper than two feet may be appropriate and reduce the reliance on institutional controls at a large number of residential properties. For example, based on the contaminated soil volume information provided to the Board for the Forest Street Incinerator and 5th and Cleveland Incinerator areas, an additional 195,000 cubic yards would be excavated under Alternative 4 compared to Alternative 3. The total present worth costs provided on page 95 of the package indicate an increase of approximately \$2 million for this additional excavation volume. Further, the comparative analysis ratings shown for Alternatives 3 and 4 suggest that Alternative 4 may provide better overall protectiveness and long-term permanence, and likely lesser reliance on institutional controls, than Alternative 3. The Board recommends that an additional alternative be considered which combines the Alternative 4 remedial actions for residential properties within the Forest Street Incinerator and 5th and Cleveland Incinerator areas with the Alternative 3 remedial action for Lennie Miller State Park.

EPA Region 4 agrees that removal below two feet in some residential areas will lessen the need for institutional controls in these areas. The decision documents will include an option to remove ash contaminated soil above remedial goals below two feet to remove all exceedences above remedial goals and lessen the institutional controls required.

8. The cost calculations for the site assume \$40/ton for disposal of the soil and ash from the contaminated areas. During discussions with the Board, the Region indicated that the city plans to use this material at the Duval County Landfill as daily cover. This being the case, the disposal costs as calculated may be significantly overstated.

The City's consultant has confirmed that \$40/ton is an actual disposal cost including the use of the material at the landfill for daily cover.

9. Information presented in the review package indicated that the Region considered some wastes on the site to be principal threats. The NCP (40 CFR Section 300.430(a)(1)(iii)) addresses consideration of treatment for principal threat wastes; the materials submitted to the Board describing the Region's proposed cleanup approach do not appear to do so. The Board recommends that the Region develop a site-specific rationale for identifying principal threat wastes in the context of the NCP and OSWER Directive 9380.3-06FS, "A Guide to Principal Threat and Low Level Threat Wastes." The Region should state in the decision documents for this site whether the remedy is addressing any source materials

that constitute principal threat wastes, or low-level threat wastes, or both. Should the Region determine that principal threat wastes are, in fact, present on site, the Region should explain whether treatment is appropriate.

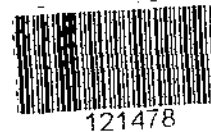
There are no principal threat wastes at the Jacksonville Ash Site. Lead in soil, which is the greatest driver of risk, generally measures from non-detect to approximately 6000 mg/kg. The vast majority of soil lead concentrations from samples at all three sites are usually < 2000 mg/kg.

Thank you, and all the Board members, for your time and effort in performing this review. Please call me at (404) 562-8933 should you have any questions.

cc: M. Cook (OSRTI)
E. Southerland (OSRTI)
S. Bromm (OSRE)
J. Woolford (FFRRO)
R. Chaffins (SRTSB)

ATTACHMENT 1

**Florida Department of Environmental Protection Letter Dated June 6, 2005
(from Gregory Munson to Winston Smith)**





Jeb Bush
Governor

Department of Environmental Protection

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3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

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Colleen Castille
Secretary

June 6, 2005

Winston A. Smith, Director
Waste Management Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street S.W.
Atlanta, Georgia 30303-8960

Dear Mr. Smith:

The United States Environmental Protection Agency has asked the State of Florida Department of Environmental Protection to provide additional information concerning its interpretation and intended implementation of recent legislation, §376.30701, Florida Statutes. This statute, together with Sections 376.3071, 376.81 and 376.3078, F.S., create a "global" risk based corrective action process for cleaning up contaminated sites in the State of Florida. This letter is intended to serve as a response to that request, and to hopefully bring to a conclusion the continuing discussion about the identification and acceptance of an excess lifetime cancer risk of 1×10^{-6} for carcinogens or a hazard index of 1 or less for non-carcinogens as applicable or relevant and appropriate requirements (ARARs) for CERCLA sites in Florida.

During its 2003 session, the Florida legislature passed a "risk based corrective action" statute, Section 376.30701, Florida Statutes (F.S.), (global RBCA) that is designed to address environmental cleanups conducted at all contaminated sites in Florida not subject to the petroleum, Brownfields, and drycleaning solvent programs described in Sections 376.3071, 376.81 and 376.3078, F.S., respectively.¹ The State of Florida through the Florida Department of Environmental Protection (FDEP) interprets this statute, which became effective June 20, 2003, to require that all global RBCA cleanups achieve an excess lifetime cancer risk of 1×10^{-6} for carcinogens or a hazard index of 1 or less for non-carcinogens, unless one of the following statutory exceptions exist:

(1) if the Department has adopted a maximum contaminant limit (MCL) for surface or groundwater that is applicable to a contaminant at the site, that MCL is the cleanup target level and a responsible party may not be required to clean up this contaminant to a level more stringent than the MCL²;

(2) if the naturally occurring background concentration of a substance is higher than the otherwise applicable cleanup target level for that contaminant at the site, a responsible party may not be required to clean up this contaminant to a level more stringent than the naturally occurring background concentration³; and

¹ §376.30701(1)(b), F.S.

² §376.30701 (2)(g)1., F.S.

³ §376.30701 (2)(g)1.; §376.30701(2)(i)1., F.S.

(3) if the best achievable detection limit for a contaminant is higher than the otherwise applicable cleanup target level for that contaminant, a responsible party may not be required to clean up this contaminant to a level more stringent than the best achievable detection limit⁴.

The risk-based corrective action requirements of Section 376.30701, F.S., apply to all cleanups conducted by any legally responsible party at these sites, to parties who are voluntarily cleaning up a site, if they are seeking FDEP approval for any aspect of the work, and to the FDEP when it is conducting any cleanup at these sites pursuant to its statutory authority⁵. Furthermore, these provisions may be enforced against all responsible parties conducting such cleanups in Florida⁶.

The FDEP has also adopted rules implementing these statutory cleanup requirements. The rules, found in Chapters 62-780 and 62-777, Florida Administrative Code (F.A.C.), also mandate that, with the exceptions noted above, cleanup target levels must meet the statutory criteria of an excess lifetime cancer risk of 1×10^{-6} for carcinogens or a hazard index of 1 or less for non-carcinogens. The rules permit a responsible party to choose whether it will meet these requirements by cleaning up to default cleanup target levels found in Chapter 62-777, Tables I and II, F.A.C., or by deriving alternative cleanup target levels for a site based on site-specific conditions and projected uses. However, although a responsible party may propose to use site-specific information concerning exposure to contaminants, these rules require that the statutory excess lifetime cancer risk of 1×10^{-6} for carcinogens or a hazard index of 1 or less for non-carcinogens be met for the alternative cleanup target levels⁷ or that engineering or institutional controls be used to control or eliminate exposure to achieve these risk-based statutory levels of protection.

The Florida legislature and the FDEP designed Section 376.30701, F.S., and Chapter 62-780, F.A.C., to provide site-specific flexibility on how to develop remedies that must meet the risk levels noted therein, but these provisions cannot be used to select less stringent site-specific cleanup levels, unless one of the exceptions noted herein apply. The FDEP believes that the requirements for cleanups to meet an excess lifetime cancer risk of 1×10^{-6} for carcinogens or a hazard index of 1 or less for non-carcinogens, and certain related provisions of the global RBCA rules are "applicable requirements"⁸ that apply to all sites not covered by the petroleum, drycleaning solvent, or Brownfields statutes. Furthermore, these requirements

⁴ §376.30701 (2)(g)1.; §376.30701(2)(i)1., F.S.

⁵ §376.30701(1)(c), F.S.

⁶ §376.30701(1), F.S., states that these clean-up requirements apply to the cleanup of all sites by legally responsible parties, including cleanups by FDEP. Rule 62-780.150, F.A.C., reiterates these requirements, but clarifies that global RBCA will not apply if the Department has accepted a different cleanup target level in writing prior to the effective date of the rule and the responsible party actually achieves that level, if FDEP has previously agreed that work on the site was completed, or if FDEP has entered into a consent order with the responsible party requiring cleanup of the site. A failure to comply with the statute is a violation. §376.302, F.S. If a violation occurs, FDEP may take appropriate enforcement action. 376.303(1)(j), F.S.; §403.121-.161, F.S.

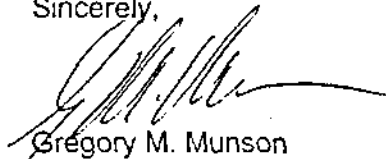
⁷ Rule 62-780.650(1)(d), F.A.C.

⁸ 40 C.F.R. §300.5

constitute ARARs⁹ for groundwater, surface water, and soil contamination that must be met or waived for cleanups at CERCLA sites in Florida subject to global RBCA.

Thank you for allowing FDEP an opportunity to provide you with additional information on this issue. We believe that we have addressed your concerns. If however, you have additional questions, please contact Jack Chisolm, Deputy General Counsel, at the above address, or by telephone at (850) 245-2275.

Sincerely,



Gregory M. Munson
General Counsel

⁹ 40 C.F.R. §300.400(g)